

PUBLICATIONS

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[† indicates student or postdoc under my supervision]

Articles in Refereed Journals / Books:

Bebout G E, Ota T, Kunihiro T, **Carlson W D**, Nakamura E (2022) Lithium in garnet as a tracer of subduction zone metamorphic reactions: The record in UHP metapelites at Lago di Cignana, Italy. *Geosphere* <https://doi.org/10.1130/GES02473.1>.

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Carlson W D, Pattison D R M, Caddick M J (2015) Beyond the equilibrium paradigm: How consideration of kinetics enhances metamorphic interpretation. [Invited Centennial article] *American Mineralogist* 100:1659-1667.

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† Moore S J, Cesare B, **Carlson W D** (2015) Epitaxial nucleation of garnet on biotite in the polymetamorphic metapelites surrounding the Vedrette di Ries intrusion (Italian Eastern Alps). *European Journal of Mineralogy* 27:5-18.

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Ashley K T, **Carlson W D**, Law R D, Tracy R J (2014) Ti resetting in quartz during dynamic recrystallization: Mechanisms and significance. *American Mineralogist* 99:2025-2030.

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- † Kelly E D, **Carlson W D**, Ketcham R A (2013) Magnitudes of departures from equilibrium during regional metamorphism of porphyroblastic rocks. *Journal of Metamorphic Geology* 31:981-1002.
- † Kelly E D, **Carlson W D**, Ketcham R A (2013) Crystallization kinetics during regional metamorphism of porphyroblastic rocks. *Journal of Metamorphic Geology* 31:963-979.
- † Moore S J, **Carlson W D**, Hesse M A (2013) Origins of yttrium and rare-earth-element distributions in metamorphic garnet. *Journal of Metamorphic Geology* 31:663-689.
- † Berg C A, **Carlson W D**, Connelly J N (2013) Strain rates at high temporal resolution from curved inclusion trails in garnet, Passo del Sole, central Swiss Alps. *Journal of Metamorphic Geology* 31:243-262.
- Carlson W D** (2012) Rates and mechanism of Y, REE, and Cr diffusion in garnet. *American Mineralogist* 97:1598-1618.
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- † Robyr M, **Carlson W D**, Passchier C, Vonlanthen P (2009) Textural, chemical, and microstructural records during growth of snowball garnet. *Journal of Metamorphic Geology* 27:423-437.

Articles in Refereed Journals / Books (continued):

- Mosher S, Levine J S F, **Carlson W D** (2008) Mesoproterozoic plate tectonics: A collisional model for the Grenville-aged orogenic belt in the Llano Uplift, central Texas. *Geology* 36:55-58.
- Proussevitch A A, Sahagian D L, **Carlson W D** (2007) Statistical analysis of bubble and crystal size distributions: Application to Colorado Plateau basalts. *Journal of Volcanology and Geothermal Research* 164:112-126.
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- † McFarlane C R M, Connelly J N, **Carlson W D** (2006) Contrasting response of monazite and zircon to a high-*T* thermal overprint. *Lithos* 88:135-149.
- Carlson W D** (2006) Dana Medalist Lecture: Rates of Fe, Mg, Mn, and Ca diffusion in garnet. *American Mineralogist* 91:1-11.
- McCoy T J, **Carlson W D**, Nittler L R, Stroud R M, Bogard D D, Garrison D H (2006) Graves Nunataks 95209: A snapshot of metal segregation and core formation. *Geochimica et Cosmochimica Acta* 70:516-531.
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- † McFarlane C R M, Connelly J N, **Carlson W D** (2005) Monazite and xenotime petrogenesis in the contact aureole of the Makhavinekh Lake Pluton, northern Labrador. *Contributions to Mineralogy and Petrology* 148:524-541.
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- Carlson W D**, Rowe T, Ketcham R A, Colbert M (2003) Geological applications of high-resolution X-ray computed tomography in petrology, meteoritics and palaeontology. In Mees F, Swennen R, Van Geet M and Jacobs P (eds.) *Applications of X-ray Computed Tomography in the Geosciences*, Geological Society of London Special Publication 215:7-22.
- † McFarlane C R M, **Carlson W D**, Connelly J N (2003) Prograde, peak, and retrograde P-T paths from aluminum in orthopyroxene: High-temperature contact metamorphism in the aureole of the Makhavinekh Lake Pluton, Nain Plutonic Suite, Labrador. *Journal of Metamorphic Geology* 21:405-423.
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- Carlson W D** (2002) Presidential Address: Scales of disequilibrium and rates of equilibration during metamorphism. *American Mineralogist* 87: 185-204.
- Ketcham R A, **Carlson W D** (2001) Acquisition, optimization, and interpretation of X-ray computed tomographic imagery: Applications to the geosciences. *Computers and Geosciences* 27:381-400.
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- Taylor L A, Keller R A, Snyder G A, Wang W, **Carlson W D**, Hauri E H, McCandless T, Kim K-R, Sobolev V N, Bezborodov S M (2000) Diamonds and their mineral inclusions, and what they tell us: A detailed "pull-apart" of a diamondiferous eclogite. *International Geology Review* 42:959-983.
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- Brown M A, Brown M, **Carlson W D**, † Denison C (1999) Topology of syntectonic melt flow networks in the deep crust: Inferences from three-dimensional images of leucosome geometry in migmatites. *American Mineralogist* 84:1793-1818.
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- † Rougvie, J R, **Carlson W D**, Copeland P, Connelly J (1999) Late thermal evolution of Proterozoic rocks in the northeastern Llano Uplift, central Texas, *Precambrian Research*. 94:49-72.
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- Carlson W D**, † Schwarze E T (1997) Petrological significance of prograde homogenization of growth zoning in garnet: An example from the Llano Uplift. *Journal of Metamorphic Geology* 15:631-644.
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Articles in Refereed Journals / Books (continued):

- † Denison C, **Carlson W D**, Ketcham R A (1997) Three-dimensional quantitative textural analysis of metamorphic rocks using high-resolution computed X-ray tomography: Part I. Methods and techniques. *Journal of Metamorphic Geology* 15:29-44.
- † Denison C, **Carlson W D** (1997) Three-dimensional quantitative textural analysis of metamorphic rocks using high-resolution computed X-ray tomography: Part II. Application to natural samples. *Journal of Metamorphic Geology* 15:45-57.
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- Carlson W D** (1989) The significance of intergranular diffusion to the mechanisms and kinetics of porphyroblast crystallization. *Contributions to Mineralogy and Petrology* 103:1-24.
- † Nelis M K, Mosher S, **Carlson W D** (1989) Grenville-age orogeny in the Llano Uplift of central Texas: Deformation and metamorphism of the Rough Ridge Formation. *Geological Society of America Bulletin* 101:876-883.
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- † Wilkerson A, **Carlson W D**, Smith D (1988) High-pressure metamorphism during the Llano Orogeny inferred from Proterozoic eclogite remnants. *Geology* 16:391-394.
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- Carlson W D** and Lindsley D H (1988) Thermochemistry of pyroxenes on the join $\text{Mg}_2\text{Si}_2\text{O}_6\text{-CaMgSi}_2\text{O}_6$. *American Mineralogist* 73: 242-252.
- † Bebout G E, **Carlson W D** (1986) Fluid evolution and transport during metamorphism: Evidence from the Llano Uplift, Texas. *Contributions to Mineralogy and Petrology* 92:518-529.
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- Carlson W D** (1983) The polymorphs of CaCO_3 and the aragonite-calcite transformation. *Reviews in Mineralogy* 11:191-225.
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- Carlson W D** (1980) The calcite-aragonite equilibrium: Effects of Sr-substitution and anion orientational disorder. *American Mineralogist* 65:1252-1262.

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Rowe T, Kappelman J, **Carlson W D**, Ketcham R A, Denison C (1997) High-resolution computed tomography: A breakthrough technology for earth scientists. *Geotimes*, September 1997, p. 23-27.

Carlson W D (1990) Enstatite. *Encyclopedia of Science and Technology* (7th Edition), McGraw-Hill.

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Rowe T, **Carlson W D**, Bottorff W (1993) *Thrinaxodon: Digital Atlas of the Skull*. [CD-ROM], University of Texas Press, 297 megabytes.

Books and Journal Issues Edited:

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Sorensen SS, **Carlson W D** [Editors] (2005) An Ernstfest Festschrift: Mineralogy and petrology of high *P/T* terranes, *P-T*-ometry, and experimental phase relations. Commemorative Issue of *American Mineralogist*, Vol. 90, No. 5-6.